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ABSTRACT

Within a given instructional period, teachers must make an enormous number of procedural and substantive decisions before, during, and after each lesson. Substantive decision-making elicits three types of teacher knowledge: declarative, involving the description or explanation of a strategy; procedural, referring to how to implement a strategy; and conditional, pertaining to why a strategy is useful and when it should be employed. To effectively employ these three knowledge bases, teachers must be thoroughly familiar with a wide variety of instructional strategies. The term "strategy review" describes the needed process of pulling together available strategies and presenting them in an organized manner designed to aid teachers in the selection process. While findings vary, research appears to suggest that study guides tend to facilitate students' comprehension performance. Types of study guides can be grouped into: (1) guides that promote skill and strategy development (including processes-of-reading guides, and pattern guides); (2) guides that facilitate content understanding (such as concept guides, learning-from-text guides, and content guides); and (3) guides with dual purposes (including textbook activity guides and interactive reading guides). (Three figures are included; 40 references are attached.) (SG)

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THE STUDY GUIDE:
A STRATEGY REVIEW

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Within a given instructional period, teachers must make an enormous number of decisions before, during and after each lesson. Some of these decisions are procedural, that is, they are concerned with maintaining the flow of activity, while others are substantive in that they involve the selection of alternative strategies (Fenstermacher, 1980; Fisher et al, 1978). Much of this latter type of decision-making is centered around determining a) what strategy to employ to communicate the information, b) why it should be used, c) how to use it, d) when and where it is appropriate, and e) how it can be evaluated (Winograd and Hare, 1988). Essentially, effective substantive decision-making elicits three types of teacher knowledge: declarative, procedural and conditional (Paris, Lipson and Wixson, 1983).

Declarative knowledge, the what of instruction, is concerned with a description or explanation of the strategy. Procedural knowledge, the how of instruction, refers to how to implement the steps or procedures of the strategy for classroom use. Conditional knowledge, the why and when of instruction, reveals why the strategy is useful and when it should be employed.

Yet, in order to effectively employ these three knowledge bases, teachers need to be thoroughly familiar with a wide variety of strategies - what they can accomplish and when, how and why they are appropriate for a particular purpose. According to classroom observational research and theory (Duffy and Ball, 1983; Shroyer, 1981), teachers tend to remain on "automatic pilot", because they lack a repertoire of alternative strategies from which to choose.

While the empirical dimension of the professional literature provides the research review as a way of globally examining and analyzing data-based

information, the instructional dimension of the literature provides no such vehicle. It is the purpose of this article to address this need by introducing the term "strategy review" as a means of pulling together available strategies and presenting them in an organized manner designed to aid teachers in the decision-making process. The primary focus will be the reading stage of the instructional lesson with specific emphasis on the many variations of a strategy designed for this stage commonly known as the reading or study guide.

What the Research Suggests

Study guides can be defined as adjunct aids which use questions or statements interspersed throughout text to assist students' comprehension and retention. Although their use has long been advocated in the professional literature (Durrell, 1956, Earle, 1969 Herber, 1970), unequivocal research is difficult because of the many variations of study guides in existence. The most extensive body of research in this area has been reported by Herber at the Syracuse University Reading and Language Arts Center (e.g. Berget, 1977; Riley, 1979; Maxon, 1979, Estes, 1973). The results of these studies show promise that study guides can be effective aids to comprehension under a variety of circumstances.

Research on the prototype of the study guide, the interspersed questions themselves, also has a broad history with studies dating back to the turn of the century (Distad, 1927; Washburne, 1929). The early studies in this area, under the influence of behaviorism, used largely factual, verbatim level questions (e.g. Frase, 1968a; Hersberger, 1964; Rothkopf, 1966); while the latter studies (e.g. Andre, Mueller, Womack, Smid and Tuttle, 1980; Rickards and DiVesta, 1974), under the influence of cognitivism, have employed higher

order questions requiring from the reader a greater depth of mental processing (Craik and Lockhart, 1972). In general, the extensive reviews of interspersed questions suggest that they tend to facilitate students' comprehension performance (Faw and Waller, 1976, Frase, 1968b, Rickards and Denner, 1978, Rothkopf, 1972). However, due to the contrived nature of the experimental material and the preponderance of college age subjects used in these studies, they have received much criticism (Tierney and Cunningham, 1984; MacDonald-Ross, 1978; Rickards, 1979; Wood 1982). More recent research conducted in a classroom setting demonstrated that using interspersed questions on a variety of content area textbook selections with school age subjects significantly improved their understanding (Wood, 1986).

The Strategy Review

There are numerous variations of study guides reported in the professional literature. With few exceptions (Wood, 1988), most of these guides, although adaptable to elementary levels, were originally designed for the secondary school. Given the purposes outlined by the respective authors, it appears that study guides can be categorized in three ways.
First, there are those guides whose primary purpose is to emphasize the skills and strategies necessary for effective reading. Secondly, there are the guides whose primary purpose is to help students determine the most significant content to learn. Third, there are the guides which tend to fall somewhere in the middle in that they have dual purposes of both strategy and content instruction. The remainder of this article will provide a synopsis of the purposes, rationale and functions of the major study guides reported in the literature. In this way, teachers can begin to align their instructional purposes with the purposes of the many guides available for their use.

Guides that Promote Skill and Strategy Development

Processes-of-Reading Guide - Singer and Donlan (1980) maintain that the various processes involved in the act of reading can be taught via a guide. Their guide takes students through an entire lesson beginning with the modeling of the skill (e.g. cause and effect, sequencing, drawing conclusions, predicting outcomes, etc.), examples and practice items. After working through the initial teaching portion of the guide, students are referred to the textbook selection for actual application of the skill/process taught.

Process Guide - The process guide (Karlin, 1964) is designed to help students identify which skills are necessary to master specific content. Unlike a typical guide, it is not duplicated on regular size paper. Instead, it is printed on strips of paper to be lined up with the text. According to Karlin, a process guide can cover several skill areas such as paragraph structure, inferences, selection, evaluation and context clues.

Pattern Guide - The primary purpose of the pattern guide as described by Vacca (1981) and Herber (1970) is to help students become sensitive to the various ways textbook selections can be organized such as cause and effect, comparison and contrast, sequence, enumeration, etc. This guide is developed to coordinate with the predominant pattern in a given text. The assumption underlying this guide is that the ability to perceive text organization is a highly sophisticated skill which most readers do not possess independently. A pattern guide scrambles the text's organization and requires that the students piece together relationships that exist within a given pattern.

Guides that Facilitate Content Understanding

Three-Level Guide - Frequently cited in the secondary literature is Herber's (1970) three-level study guide. Herber believes that reading

comprehension can be simplified by defining it as a three-level process involving literal, interpretive and applied comprehension. To this end, the three level guide uses declarative statements instead of questions. Students must determine the appropriateness and logic of each statement and find support in the passage. One of its major purposes is to give students the feeling of what it is like to comprehend at each of these levels.

Concept Guide - Concept guides originated with Baker (1977) who maintains that within any pattern of organization, there are certain concepts which are more important than others and that students need help in distinguishing the more significant concepts from the less significant ones. Concepts guides are designed to help students associate and categorize subordinate information under the major concepts. Literal level tasks and questions comprise the first part of the concept guide. In part two, students must place details of the selection under the main concepts. Part three involves a higher level of generalization in which students are required to find support from the selection for the main concepts.

Learning-From-Text Guide - Singer and Donlan (1980) state that reading objectives can be divided into two types: cognitive and affective. Underlying this belief is their notion that mastery of objectives at lower levels is necessary for mastering objectives at higher levels. Therefore, in the learning-from-text guide, the authors suggest that teachers analyze the relevant content and present it according to a) information which is explicit or directly stated, b) that which reflects significant relationships, inferences and interpretations and c) information which lends itself to generalizations and evaluations. While the first two phases are concerned largely with cognitive objectives, the latter phase can be used to elicit

students' affective and critical responses with question stems such as "How did you feel about....etc."

Content Guide - Karlin's (1964) content guide uses an information index to point out what information or content students should pay attention to and where in the selection that content can be found. An information index is a device for cueing the students to the location of the answer by giving the page number, paragraph number and/or column number (ex. p. 311, p #4, c #1). According to Karlin's original version, the guide can be differentiated to include responses to accommodate the varied ability levels of students (ex. *all; **optional). A major objective of this guide is to develop smaller purposes for reading after the overall purposes are given at the onset in the prereading stage.

Guides With Dual Purposes

Glossing - Otto et al (1981) are generally credited with demonstrating the use of marginal notations (glossing) as a means of improving the understanding of expository texts. However, according to Richgels and Hansen (1984), glossing has been in use since medieval times. Glossing, used to direct students' attention as they read, can be developed to focus on the process of reading (skills and strategies) and/or on the content of what is to be read (facts, information, concepts). Richgels and Hansen (1984) have shown how gloss can be used to help readers develop a purpose setting strategy, use their prior knowledge while reading, attend to the external and internal organization of a passage or to help monitor comprehension.

Guide-O-Rama - Cunningham and Shablak (1975) developed the guide-o-rama to help students learn "not only what to look for but what to do with it when

they find it." In this guide, the teacher begins by eliminating any sections of the chapter that do not help achieve the overall purpose for reading. Since less proficient readers tend to read either very laboriously or very rapidly, the guide-o-rama includes directives to govern the speed at which students are to read. Such directives are designed to develop flexibility in reading rate and to teach students to skip over or read quickly material that is not inherently significant.

Textbook Activity Guide - One of the most recent versions of the study guide is Davey's (1986) textbook activity guide or TAG. TAGs are different than conventional guides in that a) they necessitate that students work in pairs and b) they are based on research in metacognition and therefore have a self-monitoring component. Included in the TAG is a set of strategy codes in which tasks may call for discussions with a partner, predicting, or drawing diagrams or maps. Also included are self-monitoring codes to enable students to indicate what portions of the selection are unclear and need further clarification. Research by Davey has shown that TAGs enhanced students' overall learning.

Recent additions to the existing literature include the following guides (Wood, 1988): point-of-view, interactive and reading road map. These three guides fall under the dual purpose category in that they promote the learning of both skills and content. Although originally designed for the upper elementary level, each is readily adaptable for middle, high school and college use.

Point-of-View - In the point-of-view guide, questions are presented in an interview format to allow students to experience events in a selection from different perspectives. Such a format requires students to contribute their

own experiences as they assume the role of various characters, thereby enhancing their recall and comprehension.

The purpose of the point-of-view guide is threefold. First, it helps develop the needed skill of mental elaboration since it requires much reader-based information from the students. Secondly, it encourages the skill of mental recitation, the most powerful study technique known to psychologists (Pauk, 1974), by having students put the new information in their own words. Thirdly, it aids in the development of these skills while simultaneously helping students learn the content of the selection.

Instead of answering literal, textbook-type questions, students respond in the first person by elaborating and embellishing on the content with contributions from their prior knowledge and experiences. Although the example shown in Figure / is from a high school U. S. History lesson, the point-of-view guide can be used in other content fields as well. In the sciences, for example, students can describe dissection from the perspective of a nematode, photosynthesis from the perspective of a plant or an eruption from the perspective of a volcano. In literature, students can readily assume the roles and emotions of the characters in a selection.

Interactive Reading - If a major lesson objective is the promotion of cooperative learning, then the interactive reading guide would be an appropriate choice. Most study guides were initially designed for students to work alone while responding to a series of questions. With the interactive guide, the teacher directs the strategy by requiring responses from individuals, pairs, small groups or the class as a whole. Consequently, unlike most guides, it is an in-class strategy which may take several days to complete. Throughout the lesson, students are asked to make predictions,

Figure 1

Excerpt from Point-of-View Reading Guide
U. S. History - "America After Pearl Harbor"

You are about to be interviewed as if you were a person living in America after the attack on Pearl Harbor, December 7, 1941. Describe your reactions and thoughts to each of the events discussed next.

America's Huge War Needs (p. 617-18)

1. As a worker in a U. S. defense plant, tell what effect the War Production Board had on you, your co-workers and the soldiers abroad.

Americans Go Back to Work (p. 618)

2. As one of the leaders in a national labor union, what is your reaction to the need for war supplies?

3. As a farmer, retell how your life has changed from the depression days to the present days of wartime.

Opportunities for Women and Blacks (p. 618-19)

4. As a black man from the south, why did you move to the Northeast and Midwest sections of the U. S.?

5. Describe the effect of Hitler's racism on your position at home.

6. Tell why Executive Order 8802 was important to you.

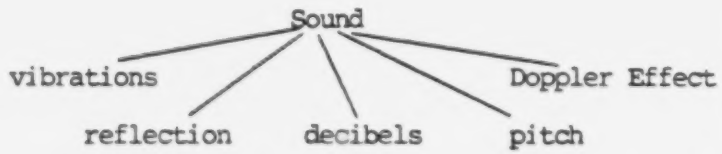
Figure 2

Excerpt from Interactive Reading Guide
Physical Science - "Sounds"

Interaction Codes:

= Individual = Pairs = Group = Whole Class

1. In your group, write down everything you can think of relative to the subtopics on "Sound". Your group's associations will be shared with the class.



2. Read the section on page 364 on "Sounds". Engage in a shared retelling with your partner by putting the information in your own words.

3. a. Write down three new things you have learned after reading the following sections: "Sound Waves Reflect"
"Sound Intensity and Loudness"
"We Can Hear Some Sounds"

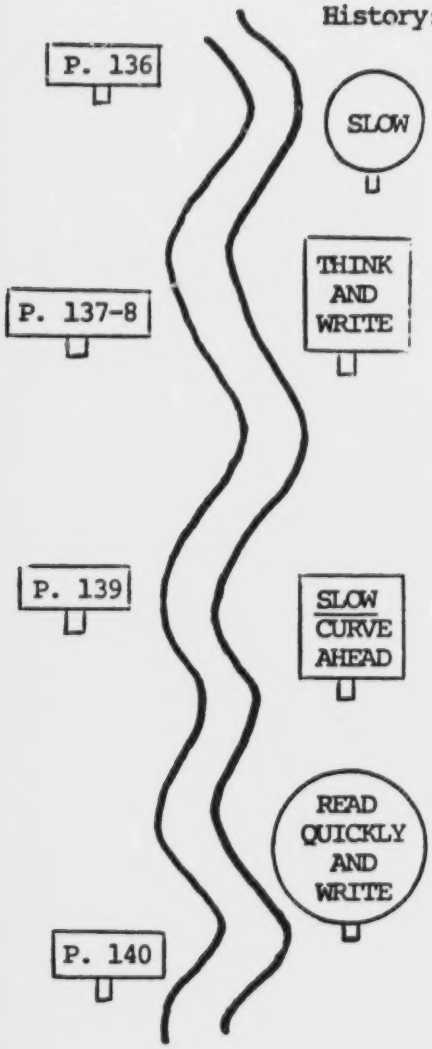
b. Compare your responses with those of your group.

4. Read to remember all you can about the section, "The Doppler Effect Changes Pitch" on pages 366-67. The associations of the class will then be written on the board for discussion.

5. Return to the major topics introduced in the first activity. Skim over your reading guide responses with these topics in mind. Next, be ready to contribute, along with the class, anything you have learned about these topics.

Figure 3

Excerpt from Reading Road Map
History: "Providing Equal Justice Under the Law"



1. Why is it important to be guaranteed the right to have a lawyer?

2. a. What is the purpose of the bail system?

   b. When is bail usually denied to an individual?

   c. Who sets the amount of bail in a case?

3. If you had just been indicted for a crime, describe how you would feel. Explain your responses.

4. What does the Sixth Amendment guarantee a person accused of a crime?

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